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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/287,776	04/07/1999	LILI KANG	0100.9900270	6690

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 03/24/2004

33

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/287,776

Applicant(s)

KANG ET AL.

Examiner

Jeff Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 15-22 is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7 January 2004 (Paper No. 26) has been entered.

Allowable Subject Matter

2. Claims 1-8 and 15-22 are allowed.

3. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art, Ranganathan (US 5,764,201) discloses a video scaler [Fig. 8A; 64] operatively responsive to input video data; and a programmable switching mechanism [Fig. 8A; 68], operatively coupled to the video scaler, to programmably switch video data from the video scaler into one of at least first and second video overlay generators [Fig. 8A; 32 & 42] that are capable of being operably coupled to at least corresponding first and second display devices [Fig. 8B; 22 & 24], in order to enable the display of the video data from the video scaler and overlay data from one of the first and second overlay generators on one of at least a first output display device and a second display device (Column 8, Line 18 - Column 10, Line 7).

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However, Ranganathan does not expressly disclose first and second video overlay generators that are *each* capable of being operably coupled to at least corresponding first and second display devices. Such a distinct circuitry arrangement has been incorporated into independent claims 1 and 15, thereby rendering them (along with corresponding dependent claims 2-8 and 16-22) allowable.

In contrast, independent claim 9 merely recites, "each of the video overlay generators outputs overlay information for a corresponding display device." Therefore, as specifically addressed below, claims 9-14 remain rejected.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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5. Claims 9, 10, and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ranganathan (US 5,764,201).

Regarding claim 9, Ranganathan discloses a video overlay apparatus comprising: a video scaler [Fig. 8A; 64] operatively responsive to input video data; a first display engine [Fig. 8A; 52] responsive to first graphics data for generating first video window timing data; a second display engine [Fig. 8A; 53] responsive to second graphics data for generating second video window timing data; a first video overlay generator [Fig. 8A; 32] operatively responsive to the first graphics data; a second video overlay generator [Fig. 8A; 42] operatively responsive to the second graphics data; and a programmable switch [Fig. 8A; 68], operatively coupled to the video scaler and to at least the first video overlay generator and the second video overlay generator, to programmably switch video data from the video scaler to at least one of the first and second video overlay generators [Fig. 8A; 32 & 42] in order to enable the selective display of video data from the video scaler and overlay data on each one of at least first and second display devices [Fig. 8B; 22 & 24], wherein each of the video overlay generators outputs overlay information for a corresponding display device and wherein the programmable switching mechanism includes a selectable video clock source [Fig. 8B; VCLK] operatively coupled to the video scaler wherein the video scaler scales input video corresponding to a display engine for at least one of a plurality of video overlay generators in response to a video clock signal output from the selectable video clock source (Column 8, Line 18 - Column 10, Line 7).

Regarding claim 10, Ranganathan discloses the programmable switching mechanism includes a programmable register [Fig. 8A; 67] (Column 9, Lines 37-46).

Regarding claim 12, Ranganathan discloses the programmable switching mechanism further facilitates programming of frame buffer space for each display engine based on which video overlay generator has been selected to receive input video (Column 12, Lines 4-12).

Regarding claim 13, Ranganathan discloses the selectable video clock source includes a programmable switch to facilitate switching between a plurality of display dependent clock signals that are selectively coupled to a common video scaler line buffer (Column 4, Lines 7-16).

Regarding claim 14, Ranganathan discloses a user interface operable to control the programmable switching mechanism to facilitate selective overlay display on a per application basis (Column 8, Lines 57-66).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan (US 5,764,201) in view of Blahut et al. (US 5,570,126).

Regarding claim 11, Ranganathan does not expressly disclose operating a graphics data unpacker, a keyer, and a data packer in unison. However, Blahut does disclose a graphics data

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unpacker [Fig. 4; 418 & 420] operative to unpack graphics data received from a respective display engine [Fig. 4; 410]; a keyer [Fig. 4; 430 & 432] operatively coupled to the graphics data unpacker and responsive to selectively route video data from a programmable switching mechanism [Fig. 4; 440]; and a data packer [Fig. 4; 444] operatively coupled to the keyer to pack combined video and graphics data from the keyer (Column 6, Lines 11-49).

Ranganathan and Blahut are analogous art, because they are from the shared field of video overlay apparatuses. Therefore, it would have been obvious to one skilled in the art at the time of invention to use Blahut's data unpacker / keyer / data packer combination with Ranganathan's video overlay apparatus, so as to maintain overlay operations while processing compressed graphics data.

Response to Arguments

8. Applicants' arguments filed 7 January 2004 (Paper No. 26) have been fully considered but they are not persuasive. The applicants contend the cited prior art of Ranganathan (US 5,764,201) neglects to disclose a programmable switching mechanism to switch video data into one of first and second video overlay generators. However, the examiner respectfully disagrees. Ranganathan explicitly discloses a programmable switching mechanism [Fig. 8A; 68 working in conjunction with 67] to switch video data [Fig. 8A; output from 52, 53 60, & 68] into one of first and second video overlay generators [Fig. 8A; 32 & 42] (see Column 8, Line 18 - Column 10, Line 7). Ranganathan's multiplexer [Fig. 8A; 68] is inherently a *programmable switching mechanism*, selectively switching between plural input data signals [Fig. 8A, 64 & 66]. Furthermore, although the applicants are correct in noting that Ranganathan's video overlay

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generators [Fig. 8A; 32 & 42] are pixel multiplexers; they are incorrect in the assumption that *pixel muxes* cannot be construed as *video overlay generators*. Ranganathan expressly discloses, "Pixel muxes 32, 42 independently select either *movie overlay data* from YUV path 34 or graphics pixels from RGB path 36" (see Column 9, Lines 5-7). By such reasoning, rejection of pending claims 9-14 is deemed necessary, proper, and thereby maintained at this time.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


J.P.

19 March 2004


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